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(54) Title: METHODS AND COMPOSITIONS FOR DIAGNOSING HEPATOCELLULAR CARCINOMA

(57) Abstract: Methods for the diagnosis of hepatocellular carcinoma (HCC) are set forth. Improved assay methods and scanning methods are included that employ non-cell-associated and cell-associated HCC related proteins. Such methods are based upon the discovery of genes that were up-regulated in diseased versus normal tissue as well as in HCC tissue when compared to the tissue of patients with other ailments.

WO 2004/005466 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/20841

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01N 33/53, 33/574, 33/543, 33/577; A61B 5/055; A61K 49/16; C12Q 1/68
US CL : 435/6, 7.1, 7.23, 7.93, 15; 424/9.1, 9.34

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/6, 7.1, 7.23, 7.93, 15; 424/9.1, 9.34

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LIN et al. Clinical Aspects of Hepatoceullular Carcinoma: Role of Serum C-Reactive Protein as a Marker of Hepatocellular Carcinoma in Patients with Cirrhosis. Journal of Gastroenterology and Hepatology. 2000, Vol. 15, pages 417-421, especially.	1-4, 6-9
X	TROJAN et al. Fluorine-18 FDG Position Emission Tomography for Imaging of Hepatocellular Carcinoma. Am. J. Gastroenterol., November 1999, Vol. 94, pages 3314-3319, especially.	1-4, 6-9, 11, 14, 16
X	TAKAHASHI et al. Expression of Telomerase Component Genes in Hepatocellular Carcinoma. Eur. J. Cancer. March 2000, Vol. 36, pages 496-502, especially page 497.	15
A	SMITH et al. Identification of Novel Tumor Markers in Hepatitis C Virus-Associated Hepatocellular Carcinoma. Cancer Research. February 2003, Vol. 63, pages 859-864.	5, 10, 12-13



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "P" document published prior to the international filing date but later than the priority date claimed

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later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

Dialog (5, 155), and West (USPT, DWPI)

Search terms: hepatocellular carcinoma, ELISA, secreted protein, antibody, PLA2G13, phospholipase A2, in vivo imaging, MRI, CT, SPECT, RT-PCR.